



ALAMEDA COUNTY
CONGESTION MANAGEMENT AGENCY

1333 BROADWAY, SUITE 220 • OAKLAND, CA 94612 • PHONE: (510) 836-2560 • FAX: (510) 836-2185
E-MAIL: mail@accma.ca.gov • WEB SITE: accma.ca.gov

ADDENDUM NO. 3

ROUTE 580 SOUNDWALLS IN SAN LEANDRO PROJECT

Federal Project No. STPL-6273(052)
ACCMA Contract No. A09-004

April 30, 2009

Dear Contractor:

This addendum is being issued with respect to the Route 580 Soundwalls in San Leandro Project.

Contractors shall submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract. This addendum is being issued to revise the Notice to Contractors, Special Provisions, Proposal and Contract. The following items indicate additions and/or deletions to the above referenced documents, and are hereby made a part thereof and are subject to all applicable requirements hereunder as if originally shown and/or specified.

The documents for this project are hereby changed as follows:

Proposal and Contract and Notice to Contractor / Special Provisions

- 1) Bid Opening Date, Tuesday, May 5, 2009, at 9:00 a.m.
- 2) Bid Proposal/Bid Schedules
- 3) Special Provision Section 10-1.33 – Concrete Structures
- 4) Special Provision Section 10-1.34 – Sound Wall

To Proposal and Contract book holders:

- Indicate receipt of this addendum by completing the addenda certification form in your proposal.
- Submit bids in the Proposal and Contract book you now possess.
- Inform subcontractors and suppliers as necessary.

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this addendum before submitting your bid.



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This office is sending this addendum via mail to Proposal and Contract book holders to ensure that each receives it.

Sincerely,

A handwritten signature in black ink, appearing to read "Frank Furger", written over a horizontal line.

FRANK FURGER, CHIEF DEPUTY DIRECTOR
Alameda County Congestion Management Agency

(DO NOT DETACH)

BID PROPOSAL

Route 580 Sound Walls in San Leandro Project

Contract No. A09-004

EA No. 04-126204

NAME OF BIDDER _____

BUSINESS P.O. BOX _____

CITY, STATE, ZIP _____

BUSINESS STREET ADDRESS _____

(Please include even if P.O. Box used)

CITY, STATE, ZIP _____

TELEPHONE NO: AREA CODE () _____

FAX NO: AREA CODE () _____

CONTRACTOR LICENSE NO. _____

TO ALAMEDA COUNTY CONGESTION MANAGEMENT AGENCY (ACCMA):

In accordance with ACCMA's "Notice to Contractor," the undersigned BIDDER hereby proposes to furnish all materials, equipment, tools, labor, and incidentals required for the above stated project as set forth in the Contract Documents, and to perform all work in the manner and time prescribed.

BIDDER declares that this proposal is based upon careful examination of the work site, Plans, Specifications, Instructions to Bidders, and other Contract Documents. If this proposal is accepted for award, BIDDER agrees to enter into a contract with the ACCMA at the unit and/or lump sum prices set forth in the following Proposal Bid Sheet. BIDDER understands that failure to enter into a contract in the manner and time prescribed will result in forfeiture to the ACCMA of the Bid Bond accompanying this proposal.

BIDDER understands that a bid is required for the entire work, that the estimated quantities set forth in the Proposal Bid Sheet are solely for the purpose of comparing bids, and that final compensation under the contract will be based upon the actual quantities of work satisfactorily completed. It is agreed that the unit and/or lump sum prices bid include all appurtenant expenses, taxes, royalties, and fees. In the case of discrepancies in the amounts bid, unit prices shall govern over extended amounts.

BIDDER agrees and acknowledges that he/she is aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and that the BIDDER will comply with such provisions of that code before commencing the performance of this Contract if awarded it.

BIDDER certifies to be properly licensed by the State of California as a contractor to perform work of this specialty. The undersigned agrees to furnish the ACCMA satisfactory proof of ability to perform the work, as well as records of performance of similar jobs completed recently, if and when requested to do so by the ACCMA.

BIDDER agrees that the insurance and bonding requirements set forth can and will be fulfilled.

BIDDER certifies that in all previous contracts or subcontracts, all reports which may have been due under the requirements of any agency, State, or Federal equal employment opportunity orders have been satisfactorily filed, and that no such reports are currently outstanding.

BIDDER declares that the only persons or parties interested in this proposal as principals are those named herein; that no officer, agent, or employee of the ACCMA is personally interested, directly or indirectly, in this proposal; that this proposal is made without connection to any other individual, firm, or corporation making a bid for the same work; and that this proposal is in all respects fair and without collusion or fraud.

BIDDER certifies that affirmative action has been taken to seek out and consider disadvantaged business enterprises for those portions of the work to be subcontracted, and that such affirmative actions have been carefully documented, that said documentation is open to inspection, and that said affirmative action will remain in effect for the life of any contract awarded hereunder.

BIDDER certifies that affirmative action will be taken to meet all equal employment opportunity requirements of the contract documents.

The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to; and he proposes, and agrees if this proposal is accepted, that he will contract with the ACCMA, in the form of the copy of the contract annexed hereto, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefor the following prices, to wit:

BID SCHEDULES

ITEM NO	ITEM CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
BASE BID SCHEDULE						
1	070012	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	1		
2	071322	TEMPORARY FENCE (TYPE CL-6)	LF	3,300		
3	074016	CONSTRUCTION SITE MANAGEMENT	LS	1		
4	074019	PREPARING STORM WATER POLLUTION PREVENTION PLAN	LS	1		
5	074026	TEMPORARY MULCH	CY	<u>410</u>		
6	074028	TEMPORARY FIBER ROLL	LF	6,600		
7	074029	TEMPORARY SILT FENCE	EA	6,050		
8	074032	TEMPORARY CONSTRUCTION WASHOUT FACILITY	EA	4		
9	074033	TEMPORARY CONSTRUCTION ENTRANCE/EXIT	EA	4		
10	074038	TEMPORARY DRAINAGE INLET PROTECTION	EA	13		

ITEM NO	ITEM CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
11	074041	STREET SWEEPING	LS	1		
12 (S)	120090	CONSTRUCTION AREA SIGNS	LS	1		
13 (S)	120100	TRAFFIC CONTROL SYSTEM	LS	1		
14 (S)	120159	TEMPORARY TRAFFIC STRIPE (PAINT)	LF	16,500		
15 (S)	120165	CHANNELIZER (SURFACE MOUNTED)	EA	50		
16 (S)	120300	TEMPORARY PAVEMENT MARKER	EA	2,450		
17	128650	PORTABLE CHANGEABLE MESSAGE SIGN	EA	2		
18 (S)	129000	TEMPORARY RAILING (TYPE K)	LF	7,300		
19 (S)	129100	TEMPORARY CRASH CUSHION MODULE	EA	108		
20	15XXXA	REMOVE RETAINING WALL CHAIN LINK FENCE	LF	475		
21	15XXXB	RETAINING WALL REMOVAL (PORTION)	LS	1		
22	150608	REMOVE CHAIN-LINK FENCE	LF	5,200		
23	150662	REMOVE METAL BEAM GUARD RAILING	LF	1,810		
24	150714	REMOVE THERMOPLASTIC TRAFFIC STRIPE	LF	22,300		
25	150722	REMOVE PAVEMENT MARKER	EA	2,510		
26	150771	REMOVE ASPHALT CONCRETE DIKE	LF	1,950		
27	150835	REMOVE EXISTING SOUND WALL	LF	375		
28	152353	RELOCATE IRRIGATION SYSTEM	LS	4	-	-
29	152386	RELOCATE ROADSIDE SIGN ONE-POST	EA	2		
30	153103	COLD PLANE ASPHALT CONCRETE	SQYD	145		
31	152387	RELOCATE ROADSIDE SIGN TWO-POST	EA	2		
32	153210	REMOVE CONCRETE	CY	15		

ITEM NO	ITEM CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
33	157561	BRIDGE REMOVAL (PORTION, LOCATION A)	LS	1		
34	157562	BRIDGE REMOVAL (PORTION, LOCATION B)	LS	1		
35	156579	REMOVE BRIDGE RAILING	LF	445		
36	160101	CLEARING AND GRUBBING	LS	1		
37	160120	REMOVE TREE	EA	24		
38	170101	DEVELOP WATER SUPPLY	LS	1		
39	190101	ROADWAY EXCAVATION	CY	550		
40	190110	LEAD COMPLIANCE PLAN	LS	1		
41	192003	STRUCTURE EXCAVATION (BRIDGE)	CY	25		
42 (F)	192038	STRUCTURE EXCAVATION (SOUND WALL AT RETAINING WALL M)	CY	250		
43	192053	STRUCTURE EXCAVATION (TYPE Z-2) (AERIALY DEPOSITED LEAD)	CY	1,600		
44	193003	STRUCTURE BACKFILL (BRIDGE)	CY	15		
45 (F)	193013	STRUCTURE BACKFILL (SOUND WALL AT RETAINING WALL M)	CY	8		
46	206401	MAINTAIN EXISTING IRRIGATION FACILITIES	LS	1		
47	390132	HOT MIX ASPHALT (TYPE A)	TON	1,550		
48	394044	PLACE HOT MIX ASPHALT DIKE (TYPE C)	LF	135		
49	394048	PLACE HOT MIX ASPHALT DIKE (TYPE E)	LF	55		
50	394049	PLACE HOT MIX ASPHALT DIKE (TYPE F)	LF	240		
51	490602	16" CAST-IN-DRILLED HOLE CONCRETE PILING	LF	160		
52 (S)	498027	16" (400mm) CAST-IN-DRILLED-HOLE CONCRETE PILING (SOUNDWALL)	LF	14,800		
53 (S)	51XXA	STRUCTURAL CONCRETE (GRADE BEAM)	CY	10		
54 (F)	51XXB	STRUCTURAL CONCRETE (BARRIER SLAB)	CY	300		

ITEM NO	ITEM CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
55 (F)	510527A	MINOR CONCRETE (ANCHOR BLOCK)	CY	6		
56	51XXXC	SOUND WALL (LIGHT WEIGHT PANEL)	SF	3,510		
57 (F)	510700	MINOR CONCRETE (SOUNDWALL PILE CAP)	CY	440		
58	511106	DRILL AND BOND DOWEL	LF	858		
59 (S-F)	518002A	SOUND WALL (MASONRY BLOCK) (SOUND WALL NO. 1, 2, AND 2A)	SF	31,500		
60 (S-F)	518002B	SOUND WALL (MASONRY BLOCK) (SOUND WALL NO. 3 AND 3B)	SF	6,750		
61 (S-F)	518002C	SOUND WALL (MASONRY BLOCK) (SOUND WALL NO. 3A)	SF	4,350		
62 (S-F)	518002D	SOUND WALL (MASONRY BLOCK) (SOUND WALL NO. 4, 5, 5A AND 6)	SF	25,500		
63 (S-F)	518002E	SOUND WALL (MASONRY BLOCK) (SOUND WALL NO. 8)	SF	12,200		
64 (S-F)	518002F	SOUND WALL (MASONRY BLOCK) (SOUND WALL NO. 9)	SF	6,200		
65 (F)	520102	BAR REINFORCING STEEL (BARRIER SLAB)	LB	36,000		
66 (S-F)	52XXXX	BAR REINFORCING STEEL (GRADE BEAM)	LB	11,650		
67	550101	STRUCTURAL STEEL	LB	65,700		
68	590115	CLEAN AND PAINT STRUCTURAL STEEL	LS	1		
69	731517	MINOR CONCRETE (GUTTER)	CY	105		
70	832002	METAL BEAM GUARD RAILING (STEEL POST)	LF	300		
71	832003	METAL BEAM GUARD RAILING (WOOD POST)	LF	360		
72	839541	TRANSITION RAILING (TYPE WB)	EA	3		
73	839585	ALTERNATIVE FLARED TERMINAL SYSTEM	EA	3		
74 (S)	839631	CRASH CUSHION MODULE, SAND FILLED	EA	22		
75 (S)	839717	CONCRETE BARRIER (TYPE 736 MODIFIED)	LF	450		
76	839731	CONCRETE BARRIER (TYPE 736 B)	LF	45		

ITEM NO	ITEM CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
77 (F)	839734	CONCRETE BARRIER (TYPE 736SV)	LF	2,900		
78	840561	4" THERMOPLASTIC TRAFFIC STRIPE	LF	22,500		
79	840563	8" THERMOPLASTIC TRAFFIC STRIPE	LF	1,200		
80 (S)	850101	PAVEMENT MARKER (NON-REFLECTIVE)	EA	1,750		
81 (S)	850111	PAVEMENT MARKER (RETROREFLECTIVE)	EA	700		
82 (S)	860620	TYPE III SERVICE EQUIPMENT ENCLOSURE	LS	1		
83 (S)	860090	MAINTAIN EXISTING TRAFFIC MANAGEMENT SYSTEM ELEMENTS	LS	1		
84 (S)	999990	MOBILIZATION (10%)	LS	1		
TOTAL - BASE BID SCHEDULE =						
ALTERNATIVE BID SCHEDULE NO. 1						
1 (S-F)	518002A	SOUND WALL (SOUND ABSORPTIVE) (SOUND WALL NO. 1, 2, AND 2A)	SF	31,500		
2 (S-F)	518002B	SOUND WALL (SOUND ABSORPTIVE) (SOUND WALL NO. 3 AND 3B)	SF	6,750		
3 (S-F)	518002C	SOUND WALL (SOUND ABSORPTIVE) (SOUND WALL NO. 3A)	SF	4,350		
4 (S-F)	518002D	SOUND WALL (SOUND ABSORPTIVE) (SOUND WALL NO. 4, 5, 5A AND 6)	SF	25,500		
5 (S-F)	518002E	SOUND WALL (SOUND ABSORPTIVE) (SOUND WALL NO. 8)	SF	12,200		
6 (S-F)	518002F	SOUND WALL (SOUND ABSORPTIVE) (SOUND WALL NO. 9)	SF	6,200		
TOTAL - ALTERNATIVE BID SCHEDULE NO. 1 =						

THE BASIS FOR COMPARISON OF BIDS SHALL BE BY EVALUATION OF THE BASE BID, EXCLUDING THE ALTERNATIVE BID SCHEDULE. THE ACCMA RETAINS SOLE DISCRETION TO PROCEED WITH THE ITEMS FROM ALTERNATIVE BID SCHEDULE NO. 1 AT THE TIME OF CONTRACT AWARD.

10-1.33 CONCRETE STRUCTURES

Portland cement concrete structures shall conform to the provisions in Section 51, "Concrete Structures," of the Standard Specifications and these special provisions.

Shotcrete shall not be used as an alternative construction method for reinforced concrete members unless otherwise specified.

FALSEWORK

Falsework shall conform to the provisions in Section 51, "Concrete Structures," of the Standard Specifications and these special provisions.

Temporary crash cushion modules, as shown on the plans and conforming to the provisions in "Temporary Crash Cushion Module" of these special provisions, shall be installed at the approach end of temporary railings which are located less than 15 feet from the edge of a traffic lane. For 2-way traffic openings, temporary crash cushion modules shall be installed at the departing end of temporary railings which are located less than 6 feet from the edge of a traffic lane.

The Contractor's engineer who signs the falsework drawings shall also certify in writing that the falsework is constructed in conformance with the approved drawings and the contract specifications prior to placing concrete. This certification shall include performing any testing necessary to verify the ability of the falsework members to sustain the stresses required by the falsework design. The engineer who signs the drawings may designate a representative to perform this certification. Where falsework contains openings for railroads, vehicular traffic, or pedestrians, the designated representative shall be qualified to perform this work, shall have at least 3 years of combined experience in falsework design or supervising falsework construction, and shall be registered as a Civil Engineer in the State of California. For other falsework, the designated representative shall be qualified to perform this work and shall have at least 3 years of combined experience in falsework design or supervising falsework construction. The Contractor shall certify the experience of the designated representative in writing and provide supporting documentation demonstrating the required experience if requested by the Engineer.

Welding and Nondestructive Testing

Welding of steel members, except for previously welded splices and except for when fillet welds are used where load demands are less than or equal to 1,000 pounds per inch for each 1/8 inch of fillet weld, shall conform to AWS D1.1 or other recognized welding standard. The welding standard to be utilized shall be specified by the Contractor on the working drawings. Previously welded splices for falsework members are defined as splices made prior to the member being shipped to the project site.

Splices made by field welding of steel beams at the project site shall undergo nondestructive testing (NDT). At the option of the Contractor, either ultrasonic testing (UT) or radiographic testing (RT) shall be used as the method of NDT for each field weld and any repair made to a previously welded splice in a steel beam. Testing shall be performed at locations selected by the Contractor. The length of a splice weld where NDT is to be performed, shall be a cumulative weld length equal to 25 percent of the original splice weld length. The cover pass shall be ground smooth at the locations to be tested. The acceptance criteria shall conform to the requirements of AWS D1.1, Section 6, for cyclically loaded nontubular connections subject to tensile stress. If repairs are required in a portion of the weld, additional NDT shall be performed on the repaired sections. The NDT method chosen shall be used for an entire splice evaluation including any required repairs.

For all field welded splices, the Contractor shall furnish to the Engineer a letter of certification which certifies that all welding and NDT, including visual inspection, are in conformance with the specifications and the welding standard shown on the approved working

drawings. This letter of certification shall be signed by an engineer who is registered as a Civil Engineer in the State of California and shall be provided prior to placing any concrete for which the falsework is being erected to support.

For previously welded splices, the Contractor shall determine and perform all necessary testing and inspection required to certify the ability of the falsework members to sustain the stresses required by the falsework design. This welding certification shall (1) itemize the testing and inspection methods used, (2) include the tracking and identifying documents for previously welded members, (3) be signed by an engineer who is registered as a Civil Engineer in the State of California, (4) and shall be provided prior to erecting the members.

MEASUREMENT AND PAYMENT

Measurement and payment for concrete in structures shall conform to the provisions in Section 51-1.22, "Measurement," and Section 51-1.23, "Payment," of the Standard Specifications and these special provisions.

The contract price paid per cubic yard for minor concrete (soundwall pile cap) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing the pile caps complete in place, including structural excavation below two feet from original grade, structural backfill, and reinforcement, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer. Structural excavation of the top two feet from original grade for the soundwall pile cap shall be paid for as Structural Excavation (Type Z-2)(Aerially Deposited Lead).

10-1.34 SOUND WALL

DESCRIPTION

This work shall consist of constructing sound walls from masonry block and light weight sound wall material. Sound walls shall be supported on concrete barriers spread footings, piles, pile caps, grade beams as shown on the plans.

SOUND WALL (MASONRY BLOCK)

Sound wall (masonry block), consisting of a reinforced hollow unit masonry block stem, shall be constructed in conformance with the provisions in Section 19, "Earthwork," Section 52, "Reinforcement," and Section 90, "Portland Cement Concrete," of the Standard Specifications and these special provisions.

Sound wall masonry unit stems shall be constructed with joints of mortar. Wall stems shall be constructed with hand laid block. Wall stems shall not be constructed with preassembled panels.

Concrete for sound wall footings, pile caps, and grade beams, if required, shall be minor concrete.

The angle of internal friction (ϕ) to be used with Standard Plan drawings for the soils at sound wall on concrete barrier on existing wingwalls is 30 degree.

Concrete masonry units shall be hollow, load bearing, lightweight or medium weight class units conforming to the requirements in ASTM Designation: C 90. Standard or open-end units may be used. Open-end units, if used, shall not reduce the spacing of the bar reinforcement as shown on the plans.

The masonry units shall be nominal size and texture and of uniform color. The colors shall be as indicated on soundwall aesthetic plans, selected from the manufacturer's standards.

When high strength concrete masonry units with $f_m=2500$ psi are shown on the plans, the high strength masonry units shall have a minimum compressive strength of 3750 psi based on net area. When high strength concrete masonry units with $f_m=2000$ psi are shown on the plans, the high strength masonry units shall have a minimum compressive strength of 2800 psi based on net area. Each high strength concrete masonry unit shall be identified with a groove embedded in an interior corner. The groove shall extend from a mortar surface for a length of about 2 inches and shall have a depth of about 3/16 inch. When regular strength concrete masonry units with $f_m=1500$ psi are shown on the plans, the regular strength masonry units shall have a minimum compressive strength of 1900 psi based on net area.

Expansion joint filler shall conform to the requirements in ASTM Designation: D 1751 or ASTM Designation: D 2000 M2AA 805.

Mortar shall be colored to match the units. Coloring shall be chemically inert, fade resistant mineral oxide or synthetic type.

Cementitious material for wall stems shall conform to the provisions in Section 90-2.01, "Cementitious Materials," of the Standard Specifications.

Hydrated lime shall conform to the requirements in ASTM Designation: C 207, Type S.

Mortar sand shall be commercial quality.

Mortar for laying masonry units shall consist, by volume, of one part cementitious material, zero to 0.5 part hydrated lime, and 2.25 to 3 parts mortar sand. Sufficient water shall be added to make a workable mortar. Each batch of mortar shall be accurately measured and thoroughly mixed. Mortar shall be freshly mixed as required. Mortar shall not be retempered more than one hour after mixing.

Prepackaged mortar materials and mortar containing admixtures may be used when approved in writing by the Engineer, provided the mortar shall not contain more than 0.05 percent soluble

chlorides when tested in conformance with California Test 422 or more than 0.25 percent soluble sulfates, as SO_4 , when tested in conformance with California Test 417.

Before laying masonry units using prepackaged mortar materials or mortar containing admixtures, the Contractor shall submit to the Engineer the proposed sources of the materials together with test data from an independent testing laboratory for mortar tested in conformance with California Test 551. The test data shall be from specimens having a moist cure, except that the sample shall not be immersed in lime water. The average 28-day compressive strength of the mortar shall be not less than 2500 psi.

Aggregate for grout used to fill masonry units shall consist of fine aggregate and coarse aggregate conforming to the provisions in Section 90-2.02, "Aggregates," of the Standard Specifications. At least 20 percent of the aggregate shall be coarse aggregate. The Contractor shall determine the grading except that 100 percent of the combined grading shall pass the 1/2-inch sieve.

At the option of the Contractor, grout for filling masonry units may be proportioned either by volume or weight. Grout shall contain only enough water to cause the grout to flow and fill the voids without segregation. The maximum amount of free water shall not exceed 0.7 times the weight of the cementitious material for regular strength masonry. The maximum amount of free water shall not exceed 0.6 times the weight of the cementitious material for high strength masonry.

Grout proportioned by volume for regular strength masonry shall consist of at least one part cementitious material and 4.5 parts aggregate. Grout proportioned by volume for high strength masonry shall consist of at least one part cementitious material and 3.5 parts aggregate. Aggregate volumes shall be based on a loose, air-dry condition.

Grout proportioned by weight for regular strength masonry shall contain not less than 550 pounds of cementitious material per cubic yard. Grout proportioned by weight for high strength masonry shall contain not less than 675 pounds of cementitious material per cubic yard.

Reinforced concrete masonry unit wall stems shall be constructed with mortar joints in conformance with the following:

- A. Concrete masonry unit construction shall be true and plumb in the lateral direction and shall conform to the grade shown on the plans in the longitudinal direction. Bond beam units or recesses for horizontal reinforcement shall be provided.
- B. Mortar joints shall be approximately 3/8 inch wide. Walls and cross webs forming cells to be filled with grout shall be full bedded in mortar to prevent leakage of grout. All head and bed joints shall be solidly filled with mortar for a distance in from the face of the wall or unit not less than the thickness of the longitudinal face shells. Head joints shall be shoved tight.
- C. Mortared joints around cells to be filled shall be placed so as to preserve the unobstructed vertical continuity of the grout filling. Any overhanging mortar or other obstruction or debris shall be removed from the inside of such cells.
- D. Reinforcement shall be securely held in position at top and bottom with either wire ties or spacing devices and at intervals not exceeding 192 bar diameters before placing any grout. Wire shall be 16 gage or heavier. Wooden, aluminum, or plastic spacing devices shall not be used.
- E. Splices in vertical reinforcement shall be made only at the locations shown on the plans.
- F. Only those cells containing reinforcement shall be filled solidly with grout. All grout in the cells shall be consolidated at the time of placement by vibrating and reconsolidated after excess moisture has been absorbed but before plasticity is lost. Grout shall not be sliced with a trowel.

- G. Walls shall be constructed in 4-foot maximum height lifts. Grouting of each lift shall be completed before beginning masonry unit construction for the next lift. The top course of each lift shall consist of a bond beam.
- H. A construction joint shall be constructed at the top of the top course to permit placement of the mortar cap. The mix design for the mortar cap shall be as approved by the Engineer.
- I. Construction joints shall be made when the placing of grout, in grout filled cells, is stopped for more than one hour. The construction joint shall be approximately 1/2 inch below the top of the last course filled with grout.
- J. Bond beams shall be continuous. The top of unfilled cells under horizontal bond beams shall be covered with metal or plastic lath.
- K. When fresh masonry joins masonry that is partially or totally set, the contact surface shall be cleaned, roughened, and lightly wetted.
- L. Surfaces of concrete on which the masonry walls are to be constructed shall be roughened and cleaned, exposing the aggregate, and shall be flushed with water and allowed to dry to a surface dry condition immediately before laying the masonry units.
- M. Where cutting of masonry units is necessary, all cuts shall be made with a masonry saw to neat and true lines. Masonry units with cracking or chipping of the finished exposed surfaces will not be acceptable.
- N. Masonry shall be protected in the same manner specified for concrete structures in Section 90-8, "Protecting Concrete," of the Standard Specifications and these special provisions.
- O. During erection, all cells shall be kept dry in inclement weather by covering partially completed walls. The covering shall be waterproof fabric, plastic or paper sheeting, or other approved material. Wooden boards and planks shall not be used as covering materials. The covering shall extend down each side of masonry walls approximately 2 feet.
- P. Splashes, stains, or spots on the exposed faces of the wall shall be removed.

SOUND WALL (SOUND ABSORPTIVE)

On Alternative Bid Schedule Number 1 the Contractor prepare a bid for one of the following absorptive sound wall systems as a substitute for the masonry block sound walls shown on the plans and specified in these special provisions:

Proprietary Sound Wall System	Address and Phone Number
Port-O-Wall Sound Wall	Port-O-Wall Systems LLC 585 Fifth St. W. PMB 182 Sonoma, CA 95476 Telephone: (707)938-4516
Soundsorb Noise Barrier	SoundSorb Durable Acoustic Soundwall 3300 Bee Cave Road, Suite 650 Austin, TX 78746 Telephone: (512) 327-8481

The above list of acceptable absorptive sound wall systems has been selected from the Department's current list of prequalified sound wall systems and is limited only to those systems determined to have characteristics suitable for this project.

Only one type of sound wall system shall be used at any single wall location.

The list of prequalified sound wall systems has been developed from data previously furnished by suppliers or manufacturers of each system. Approval of additional sound wall

systems is contingent on the system meeting the full range of parameters for which prequalification is required. The prequalification requirements can be obtained by contacting the Transportation Laboratory.

The absorptive sound wall systems shall be constructed to the lines and grades shown on the plans, except that the absorptive sound wall may have a height greater than that shown on the plans. The construction shall conform to the details shown on the approved working drawings, approved proprietary system details, and these special provisions.

WORKING DRAWINGS

The Contractor shall submit complete project specific working drawings for each installation of the system to the Office of Structure Design (OSD) in conformance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications and these special provisions. For initial review, 4 sets of drawings shall be submitted. After review between 6 and 12 sets, as requested by the Engineer, shall be submitted to OSD for final approval and use during construction.

Working drawings for absorptive sound wall systems shall be 11" x 17" in size, and each drawing and calculation sheet shall include the State assigned designations for the contract number, full name of the structure as shown on the contract plans, and District-County-Route-Post Mile. The design firm's name, address, and telephone and fax numbers shall be shown on the working drawings. Each sheet shall be numbered in the lower right hand corner and shall contain a blank space in the upper right hand corner for future contract sheet numbers.

Working drawings for absorptive sound wall systems shall contain all information required for the proper construction of the system at each location. The working drawings shall include design parameters, material notes, and wall construction procedures and shall be accompanied with calculations. The working drawings and calculations shall be stamped and signed by an engineer who is registered as a Civil Engineer in the State of California.

The Contractor shall allow the Engineer 4 weeks to review the drawings after a complete set has been received. In the event the Engineer fails to complete the review within the time allowed, and if, in the opinion of the Engineer, completion of the work is delayed or interfered with by reason of the Engineer's delay in completing the review, the Contractor will be compensated for any resulting loss, and an extension of time will be granted, in the same manner as provided for in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

Unless otherwise specified, at the completion of each structure for which working drawings were submitted, the Contractor shall submit to the Engineer one set of corrected as-built prints 11" x 17" in size and on 20-pound (minimum) bond paper, showing as built conditions. As-built drawings that are common to more than one structure shall be submitted for each structure.

SOUND WALL (LIGHT WEIGHT PANEL)

Sound Wall (Light Weight Panel) shall be furnished and installed as shown on the plans and in conformance with the provisions in the Standard Specifications and these special provisions.

Sound Wall (Light Weight Panel) shall be transparent type, manufactured by Cyro Industries.

The successful bidder can obtain from the following distributor the Sound Wall (Light Weight Panel) manufactured by Cyro Industries at 379 Interpace Pkwy. Parsippany, NJ 07054:

Durisol USA, 8270 Greensboro Drive, Suite 810, McLean, Virginia, 22102

The price quoted by the manufacturer for Sound Wall (Light Weight Panel) is \$43.30/SF, not including sales tax.

The above prices will be firm for orders placed within 30 days of contract award, and provided delivery is accepted within 90 days after the order is placed.

Light Weight Panel shall be installed in conformance with the manufacturer's recommendations.

RPDM Gasket used for attaching the light weight panel to the steel frame shall be limited to those which have been provided by the manufacturer.

The Contractor shall furnish the Engineer one copy of the manufacturer's plan and parts list for each model installed.

The Contractor shall provide the Engineer with a Certificate of Compliance from the manufacturer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications. The Certificate of Compliance shall certify that Light Weight Panel conforms to the contract plans and specifications, and conforms to the prequalified design and material requirements.

Light Weight Panel will be measured by the unit as determined from actual count in place in the completed work.

The contract price paid per square foot for Sound Wall (Light Weight Panel) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing the light weight panel to the steel frame, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

ACCESS GATES

Access gates shall conform to the details shown on the plans and these special provisions.

Timber members shall be tongue and groove Douglas fir sub-flooring free of knotholes. The location of knots of adjoining boards shall be staggered. The construction of the gate shall be with the tongue placed in the up position. The tongue of the top board and the groove of the bottom board shall be removed.

Timber members, steel frames, channels, anchorage devices, mounting hardware, gate rollers, corrugated steel pipe, nylon washers, and neoprene tubing shall be of commercial quality.

The one-inch round ladder rungs with nonskid surface shall consist of No. 8 deformed bar reinforcing steel of commercial quality.

Gate rollers shall be rigid casters with self-lubricating bearings and hard rubber wheels.

All metal parts and hardware shall be hot-dip galvanized.

Timber surfaces of the access gates shall be primed and then stained with 2 coats of stain to match the adjacent sound wall. Primer and stain shall be of the top grade primer and stain from an established manufacturer. An established manufacturer is one who has manufactured industrial paints and stains to meet custom specifications for at least 10 years.

Where the back side of the masonry wall is to be split faced or rough surface blocks, the bond beam above the gate opening upon which the upper gate guide is to be mounted shall have smooth-sided blocks.

Material from excavation may be used for backfill outside of the pipe landings. Aggregate filling inside the pipe landings shall be a coarse concrete aggregate of commercial quality. Compacting of the aggregate will not be required.

MEASUREMENT AND PAYMENT

Sound walls of the types designated in the Engineer's Estimate will be measured by the square foot of the area of wall projected on a vertical plane between the elevation lines shown on the plans and length of wall (including the exposed posts, backup wall for access openings, and access gates).

The contract price paid per square foot for sound wall of the types designated in the Engineer's Estimate shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing the sound wall, complete in place, including all anchorages, access gates, ladders, restoration of existing fence

including posts and reinforcement, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer. Sound wall supports will be measured and paid for as separate items of work.

Because the pile cap and concrete barrier is integrated into the Port-O-Wall system, should the option to award the alternative bid items be exercised, the ACCMA will take the respective cost reduction for the masonry block type of walls that will not be constructed. The alternative bid schedule unit prices for the sound absorbing wall (or wall) option, the ACCMA will only pay the associated square footage at the alternate bid wall unit price.

The bid unit prices for the absorptive walls in the alternate bid schedule shall include full compensation for furnishing all labor, materials, labor, tools equipment, and incidentals, and for doing all of the work involved in constructing the absorptive walls, concrete barrier and pile caps, complete in place, including excavation, backfill, reinforcement, and staining as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The associated bid items of work such as the concrete barrier, pile cap, rebar, masonry block, etc. that are part of the base bid wall will not be measured or paid for if the ACCMA chooses to exercise the alternative bid schedule.

The adjustment of unit bid items for concrete barrier, minor concrete (pile cap), and sound wall (masonry block) per section 4-1.03B of the Standard Specifications will not be applied should the absorptive walls in the alternative bid schedule be awarded.

Structural concrete (barrier slab) will be measured and paid per cubic yard in the same manner specified for structural concrete (bridge) in Section 51-1.23 of the standard Specifications.

Structural concrete (grade beam) will be measured and paid per cubic yard in the same manner specified for structural concrete (bridge) in Section 51-1.23 of the standard Specifications.